

WHAT IS CLAIMED IS:

1. A motor control apparatus which controls driving of a motor, comprising:

a speed detection unit which outputs a signal according to the speed of the motor or a movable unit driven by the motor; and

a control unit which performs, during the acceleration control of the motor or the movable unit toward a target speed, control on the application of an electric brake to the motor when the speed detected based on the signal from the speed detection unit exceeds the target speed.

2. The motor control apparatus according to claim 1,

wherein during the acceleration control, the control unit performs control on the application of the electric brake to the motor when the speed detected based on the signal from the speed detection unit exceeds the target speed by a predetermined speed or more and

the motor control apparatus further comprises a storage circuit which stores the predetermined speed in a rewritable manner.

3. The motor control apparatus according to claim 1,

wherein during the acceleration control, the control unit performs control on the application of the electric brake to the motor when the speed detected based on the

signal from the speed detection unit exceeds the target speed by a first predetermined speed or more, and during the deceleration control toward stoppage, the control unit performs control on the application of the electric brake to the motor when the speed detected based on the speed detection unit exceeds a target speed for deceleration by a second predetermined speed or more, and

the first predetermined speed is set to be different from the second predetermined speed.

4. The motor control apparatus according to claim 3, further comprising a storage circuit which stores the first and second predetermined speeds in a rewritable manner.

5. A lens apparatus comprising:

a lens unit movable in the direction of an optical axis;

a motor which drives the lens unit;

a speed detection unit which outputs a signal according to the motor or a lens unit driven by the motor;

a control unit which controls driving of the motor,

wherein during the acceleration control of the motor or the lens to a target speed, the control unit performs control on the application of an electric brake to the motor when the speed detected based on the signal from the speed detection unit exceeds the target speed.

6. The lens apparatus according to claim 5, wherein during the acceleration control, the control unit performs control on the application of the electric brake to the motor when the speed detected based on the signal from the speed detection unit exceeds the target speed by a predetermined speed or more, and

the lens apparatus further comprises a storage circuit which stores the predetermined speed in a rewritable manner.

7. The lens apparatus according to claim 5, wherein during the acceleration control, the control unit performs control on the application of the electric brake to the motor when the speed detected based on the signal from the speed detection unit exceeds the target speed by a first predetermined speed or more, and during the deceleration control toward stoppage, the control unit performs control on the application of the electric brake to the motor when the speed detected based on the signal from the speed detection unit exceeds a target speed for deceleration by a second predetermined speed or more, and

the first predetermined speed is set to be different from the second predetermined speed.

8. The lens apparatus according to claim 7, further comprising a storage circuit which stores the first and second predetermined speeds in a rewritable manner.
circuit.

9. A camera system comprising:
the lens apparatus according to claim 5; and
a camera in which the lens apparatus can be mounted.
10. The camera system according to claim 9, wherein the camera comprises a calculating circuit which performs calculations for focusing when the speed detected based on the signal from the speed detection unit is kept at the target speed.
11. A camera comprising:
the lens apparatus according to claim 5; and
a photoelectric conversion element which photoelectrically converts an object image formed by the lens apparatus.
12. The camera according to claim 11, further comprising a calculating circuit which performs calculations for focusing when the speed detected based on the signal from the speed detection unit is kept at the target speed.